

REMARKS

This is in response to the Office Action of October 21, 2008. Claim 1 is amended, based upon such disclosure as that in lines 20-21 on page 5 and in lines 5-12 on page 9 of the specification. No new matter is introduced by this Amendment. Claims 1, 2, 5, and 7-16 are pending in the application.

The prior art rejection

Claims 1, 2, 5, and 7-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over US 2001/0006866 A1 (Kuroiwa) in view of US 6,641,763 B2 (Nakamura) and US 5,452,507 (Brunner). Office Action, pages 2-4. The rejection is respectfully traversed.

Kuroiwa discloses in paragraph [0082] that “The tows to be used in the practice of the invention are made of organic synthetic fibers.” Thus, Kuroiwa teaches a tow fabric made entirely of organic synthetic fibers. When both the tows in the warp and the tows in the weft of a fabric are made of organic synthetic fibers, as taught by Kuroiwa, a person of ordinary skill in the art knows that those two tows are easily bonded to one another.

Kuroiwa neither teaches nor suggests a fabric in which a “reinforcing fiber yarn is selected from the group consisting of carbon fibers, glass fibers, boron fibers, and steel fibers” and in which “a support fibrous member ... is formed of multifilament yarn that is made of polyolefin composite fibers.” That is, Kuroiwa fails to teach or suggest a fabric in which one of the yarns in the warp and the weft is made of organic synthetic fibers and the other is made of inorganic synthetic fibers, as required by the present invention. It goes without saying that Kuroiwa fails to teach or suggest such a fabric in which one fiber “is a fiber extended yarn made of multifilaments that form a flat shape without twists” and the other fiber is “polyolefin composite fibers having a core-sheath structure in which the sheath portion is formed by a polymer having a lower melting point than that of the core portion” as required by the present invention.

As discussed in the paragraph bridging pages 8-9 of Applicants’ specification, “Polyolefin-based multifilaments to be used for the support fibrous member of the present invention have no bonding property to high-strength fibers, such as carbon fibers, glass fibers, boron fibers, steel fibers, aramid fibers and vinylon fibers.” Persons of ordinary skill in the art

would not be motivated to use such inorganic synthetic fibers – with no bonding property to polyolefins – in the context of the present invention, even though the inorganic synthetic fibers are known in general.

In accordance with the present invention, the problems associated with bonding two different kinds of yarns – which do not inherently bond to each other – are solved by bonding the fibers through an anchor effect, as reflected in Applicants' claims. In this way, a reinforcing nonwoven base fabric can be formed into a sheet shape with the fiber extended yards having the flat shape without twist and without the problems caused by voids and moisture-absorbing properties.

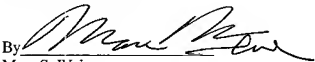
This expressly recited benefit of the present invention ("the reinforcing non-woven base fabric being formed by laminating and thermo-compressing the reinforcing fiber yarns and support fibrous members to anchor the reinforcing fiber yarns with the support member to form a sheet shape") is not provided by the prior art. None of Kuroiwa and Nakamura and Brunner discloses, suggests, or recognizes the presently claimed structure and manner of overcoming the problem discussed above. Withdrawal of the prior art rejection of record is in order and is earnestly solicited.

Contact information

If there are any questions concerning the present application, the Examiner is respectfully requested to contact Richard Gallagher (Reg. No. 28,781) at (703) 205-8008.

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Respectfully submitted,

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